

PATENT CLAIMS

1. A spacer (3) preferably made entirely of ceramic
5 and with an adapter (4) for securing the positions
of the spacer in the lateral direction and the
direction of rotation relative to an implant (1),
said adapter comprising first and second portions
10 (4b, 4c) designed to cooperate with the spacer and
the implant, respectively, to achieve said
securing, characterized in that, when the spacer
is in its position fitted on the implant, the
adapter is completely enclosed by the spacer and
15 the implant, and in that the first portion (4b) of
the adapter is additionally designed in accordance
with one or both of the following alternatives:
- a) with one or more, preferably two, slits (4d,
20 4d'), preferably extending in the longitudinal
direction of the first portion and arranged to
give the first portion resilient properties
which effect or take part in the securing of
the adapter to the spacer, and/or
- 25 b) with penetrating parts (4e) which, when the
adapter and the spacer are joined together,
cause a deformation in the material contact
surfaces.
- 30 2. The spacer with adapter as claimed in claim 1,
characterized in that the spacer, with the adapter
applied to it, bears via a bottom surface (3a)
against a top surface (1a) of the implant, and in
that the adapter enclosed in the spacer and the
35 implant is exposed to the outsides of the spacer
and of the implant only via a gap or interface
located between the bottom and top surfaces, and
the arrangement, for example a locking screw (5),
for securing the spacer to the implant.

3. The spacer with adapter as claimed in claim 1 or 2, characterized in that the first portion (4b) is arranged with a limited longitudinal extent, for example $1/3$ to $1/5$ of the total length (L) of the adapter, and in that the spacer has a portion, for example a cone (3d), which can be directed towards the implant and which has a low height (H), for example a height which is $1/3$ to $1/5$ of the total height (h) of the spacer, which permits a guide surface (1a) placed high up.
4. The spacer with adapter as claimed in claim 1a, 2 or 3, characterized in that, in the position in which the adapter is not joined to the spacer, the first portion has a geometry which exceeds the geometry of a corresponding recess in the spacer so that, when the spacer and the adapter are moved into the joined position, the parts (4b', 4b'') of the first portion can be pushed inwards resiliently and effect a securing function in the assembled position.
5. The spacer with adapter as claimed in claim 1a, 2, 3 or 4, characterized in that said slit or slits (4d, 4d') extend along the whole extent of the first portion and into parts of the second portion (4c).
6. The spacer with adapter as claimed in claim 5, characterized in that said slit or slits extend along about half of the total length of the adapter.
7. The spacer with adapter as claimed in any of claims 1 - 6, characterized in that the first portion has a polygonal external cross section, for example a hexagonal cross section.

8. The spacer with adapter as claimed in any of claims 1 - 7, characterized in that the penetrating parts consist of the corners of the polygon which are deformed in rounded corners in a corresponding configuration in the spacer.
9. The spacer with adapter as claimed in claim 7 or 8, characterized in that the penetrating parts consist of forwardly or laterally projecting parts, for example flange parts, which are deformed in an opposite surface or surfaces in the spacer.
10. The spacer with adapter as claimed in any of claims 1 - 9, characterized in that the second portion is provided with outwardly projecting members (4a, 4a', 4b') designed to fix it in the direction of rotation relative to the implant.
11. The spacer with adapter as claimed in claim 10, characterized in that, in cross section, the outwardly projecting members comprise substantially semicircular members which can be placed opposite corresponding recesses (4a) in the implant.
12. The spacer with adapter as claimed in claim 9, 10 or 11, characterized in that the outwardly projecting members are three in number and are uniformly distributed about the circumference.
13. The spacer with adapter as claimed in any of claims 1 - 12, characterized in that the slit or slits extend through one, two or all of said projecting members.
14. The spacer with adapter as claimed in any of claims 1 - 13, characterized in that the spacer and the adapter can be released from one another

in the assembled state and can be joined again to one another or to another spacer or adapter with a corresponding assembly function/geometry.

- 5 15. The spacer with adapter as claimed in any of
claims 1 - 14, characterized in that, when the
spacer is in its position fitted on the implant,
the adapter takes up a position which is
essentially unaffected in the longitudinal
10 direction of the adapter.
16. The spacer with adapter as claimed in any of
claims 1 - 15, characterized in that, in its
position enclosed by the spacer and by the
15 implant, the adapter cannot be acted upon in the
longitudinal direction of the adapter and cannot
be acted upon by lateral forces/bending forces.